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Remarks

Reconsideration of the above-captioned application is respectfully requested. Claims 1-4 have been rejected as being anticipated by Jaster, Claims 1-3, 8-14, 17-19, 22-24, and 27-39 have been rejected as being anticipated by Freeman, and Claims 1-4, 7-9, 11-13, 27-34, 38, and 39 have been rejected as being obvious over DeBlock et al. in view of Northrup. Also, Claims 4-6 have been rejected as being unpatentable over Freeman in view of DeBlock et al., and Claims 5, 6, 10, 14, 18, 19, 23, and 35-37 have been rejected as being unpatentable over DeBlock et al. Claims 15-17, 20-22, and 24-26 have been rejected as being unpatentable over DeBlock et al. in view of Knudson.

Thus, Claim 1 has been rejected as being anticipated by two references and as being unpatentable over a third reference. Accordingly, the examiner's attention is directed to MPEP §706.02 (*rejections should be strictly confined to the best available art. Cumulative rejections should be avoided*).

To overcome the rejections, Claims 1, 11, and 14 have been amended to recite a shaft defining at least one segment, the segment having an axially straight outer surface throughout bounded by opposed ends, with the surface irregularity being formed between the ends of the segment. This is shown and described in Figure 2 (showing a single lower segment shaft 34 that is shown with an axially straight outer surface that is bounded by two ends) and on page 8 *et seq.* Claims 1-18, 23-26, 33-35, and 37 remain pending.

Rejections Under 35 U.S.C. §102

Claims 1-4 again have been rejected under 35 U.S.C. §102 as being anticipated by Jaster, which teaches a transparent dome having a conical transparent reflector therein. Jaster does not disclose anything

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about what is below the base 14 of its roof-mounted dome, i.e., Jaster does not even show the shaft to which the dome is attached.

For some reason, the examiner continues to try to shoehorn Jaster's upside-down conical reflector located above a shaft in the dome into a surface irregularity on the inside of a shaft. Applicant fully addressed this in the last Office Action response and will not further belabor the point short of the Board level.

Claims 1-3, 8-14, 17-19, 22-24, and 27-39 have been rejected as being anticipated by Freeman, which teaches a flexible accordion-shaped skylight shaft. Because it is accordion-shaped (or, in the examiner's phrasing, "folded"), the examiner has essentially read the radial portions (presumably, the "folds") that are between adjacent segments of the accordion as the claimed irregularity. This allegation has been overcome, because as now amended Claims 1, 11, and 14 require irregularities within a segment, defined to be a portion of the shaft that has an axially straight outer surface that is bounded by two ends. Since no irregularities are taught or suggested to be within a segment of Freeman, the rejection is overcome.

With respect to independent Claim 23, there is simply no teaching or suggestion in Freeman to form surface irregularities in the adhesive, which explains why the rejection fails to address this point as is otherwise required by the MPEP. The rejection is not legally supportable.

With respect to Claims 33-35 and 37, there is no allegation in the rejections that Freeman teaches longitudinal grooves as otherwise recited in these claims, which indeed it does not. The examiner should ensure that future rejections fully treat each element of each claim being rejected.

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Rejections Under 35 U.S.C. §103

Claims 1-4, 7-9, 11-13, 27-34, 38, and 39 have been rejected under 35 U.S.C. §103 as being unpatentable over DeBlock et al. in view of Northrup, Jr.. Also, Claims 4-6 have been rejected as being unpatentable over Freeman in view of DeBlock et al., and Claims 5, 6, 10, 14, 18, 19, 23, and 35-37 have been rejected as being unpatentable over DeBlock et al. Claims 15-17, 20-22, and 24-26 have been rejected as being unpatentable over DeBlock et al. in view of Knudson.

According to DeBlock et al., the elements 72 and 74, relied upon as the claimed surface irregularities, are simply the inner and outer surfaces of an apparently smooth dome. Thus, not only is the relied-upon "surface irregularity" of DeBlock et al. not that at all, but it is not on the inside of a shaft. The examiner is thus 0-2 on this point. The examiner compounds the error with a non-sequitur, namely, by conflating the relied-upon "surface irregularities" in the dome with the reflective coatings inside DeBlock et al.'s shafts 40-44 to arrive at the claimed surface irregularities in the adhesive/film in certain of the rejected claims.

The legal errors do not stop here, however, because the examiner next proposes combining DeBlock et al. with Northrup, Jr., a reference directed to solar collectors that never mentions "skylights". The rationale advanced for this providential combination is that it would provide "more accurate control of light reflection". But not only is this proposed suggestion to combine without a shred of prior art support as is otherwise required by MPEP §2143.01 (why, for instance, would someone be motivated to combine structure for generating electricity with structure for lighting a room?), it is technically incorrect. As taught in the present specification, the surface irregularities diffuse light, the very opposite of "providing more accurate control of reflection". It is plain that the rejection cannot be sustained.

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Continuing, Claims 5, 6, and 10 have been rejected on the basis that although DeBlock et al. admittedly fails to disclose the limitation of the film being greater than 50% reflective, and fails to disclose the limitations of the facial orientations, it is of no import, since these are only "working ranges" and thus are unpatentable over DeBlock et al. A geometric recitation of a face of an irregularity is not a "range", however. Also, since the examiner has failed to show that reflectance of $>50\%$ is a prior art "working range", this rejection is as legally unsupportable as are its companions.

Claims 14, 18, 19, 23, and 35-37 have been dismissed on the ground that although "DeBlock does not teach specifically the method of assembling (sic) for the skylight structure, and (sic) examiner considers this to be the obvious method of setting of the device of the claims (sic)". This rejection is virtually unrecognizable as a serious one since it makes no pretense whatsoever of being grounded in the notion of the rule of law. It does not matter one whit what the examiner considers to be obvious. What matters under the MPEP is what the prior art suggests. Unless and until the examiner can produce prior art support for his conjecture that something is obvious, the claims must be allowed (see 35 U.S.C. §§102 and 103, mandating that in the absence of disqualifying prior art, a patent "shall" issue).

Turning to the rejection of certain claims that depend from Claim 23, Knudson, used as a teaching of a manufacturing process, nowhere mentions the words "adhesive", "glue", or even "skylight", much less does Knudson suggest making irregularities in the adhesive that is applied to a flat substrate to hold a reflective film.



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (twice amended) A skylight assembly, comprising:
at least one skylight shaft defining at least one segment, the segment having an axially straight outer surface throughout bounded by opposed ends;
at least one layer of reflective film on the inside of the [shaft]segment;
at least one layer of adhesive holding the film to the [shaft]segment; and
at least one surface irregularity formed in at least one of: the adhesive, the reflective film, and the segment[shaft];
wherein the shaft is not transparent.
11. (amended) A skylight assembly, comprising:
at least one skylight shaft defining at least one segment, the segment having an axially straight outer surface throughout bounded by opposed ends;
at least one layer of reflective film on the inside of the segment[shaft];
at least one layer of adhesive holding the film to the segment[shaft]; and
surface irregularity means for diffusing light as it is reflected through the length of the segment[shaft].
14. (amended) A method for making a skylight shaft, comprising the acts of:
providing a flat substrate defining at least one segment, the segment having an axially straight outer surface throughout bounded by opposed ends;
forming surface irregularities at least in the [substrate]segment;
rendering at least the [flat substrate] segment reflective; and
forming a shaft out of the substrate.

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